



#5
PATENTS

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
)	
Schinazi, et al.)	
)	Art Group No.: 1614
Serial No.: 09/879,854)	
)	Examiner: Not Yet Assigned
Filed: June 12, 2001)	
)	
For: Nucleosides with Anti-Hepatitis)	Atty. Docket No.: 18085.105093
B Virus Activity)	

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
Box IDS
Washington, DC 20231

January 10, 2002


Sir:

The citation of information on the attached Form PTO-1449, "Information Disclosure Statement by Applicant" is made pursuant to 37 C.F.R. §§ 1.56, 1.97, and 1.98. A copy of each cited item is enclosed.

Because this paper is filed before a first office action on the merits, no fee is believed due.

Nevertheless, please charge any requisite fees associated with this paper to Deposit Account No. 11-0980.

Respectfully submitted,


Clark G. Sullivan
Reg. No. 36,942

KING & SPALDING
191 Peachtree Street
Atlanta, GA 30303
404-572-2882 (Telephone)
404-572-5145 (Facsimile)



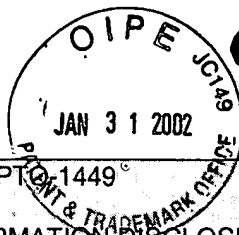
CERTIFICATE OF MAILING (37 CFR 1.8a)

I hereby certify that this Information Disclosure Statement, along with any paper referred to as being attached or enclosed, is being deposited with the United States Postal Service on the date shown below with sufficient postage as first-class mail in an envelope addressed to the Assistant Commissioner for Patents, Washington, D.C. 20231.

Clark G. Sullivan

Date: January 10, 2002

File No.: EMU 120 CON (18085.105093)



Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)	Docket No:	Application No:
	18085.105093 (EMU120CON)	09/879,854
	Applicant:	
	Raymond F. Schinazi, <i>et al.</i>	
Filing Date:	Group Art Unit:	
June 12, 2001	1614	

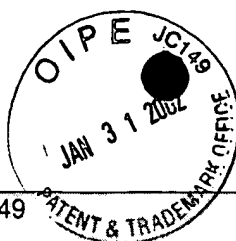
U.S. PATENT DOCUMENTS

Examiner Initials		Document Number	Date	Name	U.S. Class	U.S. Subclass	Filing Date If Appropriate
	AA	4,000,137	12/28/76	Dvonch, <i>et al.</i>	260	252	06/10/75
	AB	4,140,761	02/20/79	Gerin, <i>et al.</i>	424	85	04/11/77
	AC	4,336,381	06/22/82	Nagata, <i>et al.</i>	544	313	11/03/80
	AD	4,788,181	11/29/88	Driscoll <i>et al.</i>	514	49	09/29/86
	AE	4,818,538	04/04/89	Rideout, <i>et al.</i>	424	436	10/21/87
	AF	4,861,759	08/29/89	Mitsuya, <i>et al.</i>	514	46	08/11/87
	AG	4,879,277	11/07/89	Mitsuya, <i>et al.</i>	514	49	08/11/87
	AH	4,900,828	02/13/90	Belica, <i>et al.</i>	544	317	05/12/88
	AI	4,916,122	04/10/90	Chu, <i>et al.</i>	514	50	10/02/87
	AJ	4,963,533	10/16/90	de Clercq, <i>et al.</i>	514	49	10/24/86
	AK	5,041,449	08/20/91	Belleau, <i>et al.</i>	514	274	06/29/90
	AL	5,047,407	09/10/91	Belleau, <i>et al.</i>	514	274	02/08/89
	AM	5,059,690	10/22/91	Zahler, <i>et al.</i>	544	276	05/01/90
	AN	5,089,500	02/18/92	Daluge	514	261	05/08/91
	AO	5,149,794	09/22/92	Yatvin, <i>et al.</i>	536	29	11/01/90
	AP	5,151,426	09/29/92	Belleau, <i>et al.</i>	514	262	06/17/91
	AQ	5,179,104	01/12/93	Chu, <i>et al.</i>	544	310	12/05/90
	AR	5,185,437	02/09/93	Koszalka, <i>et al.</i>	536	24	08/31/91
	AS	5,194,654	03/16/93	Hostetler, <i>et al.</i>	558	152	11/22/89
	AT	5,204,466	04/20/93	Liotta, <i>et al.</i>	544	317	02/01/90
	AU	5,210,085	05/11/93	Liotta, <i>et al.</i>	514	274	02/22/91
	AV	5,223,263	06/29/93	Hostetler, <i>et al.</i>	424	450	06/28/89
	AW	5,234,913	08/10/93	Furman, Jr. <i>et al.</i>	514	49	03/05/92
	AX	5,248,776	09/28/93	Chu, <i>et al.</i>	544	310	12/05/91
	AY	5,256,641	10/26/93	Yatvin, <i>et al.</i>	514	2	07/09/92
	AZ	5,270,315	12/14/93	Belleau, <i>et al.</i>	514	262	03/07/91
	AAA	5,276,151	01/04/94	Liotta	544	317	12/06/91
	AAB	5,411,947	05/02/95	Hostetler, <i>et al.</i>	514	43	12/06/92
	AAC	5,444,063	08/22/95	Schinazi	514	262	10/28/92
	AAD	5,463,092	10/31/95	Hostetler, <i>et al.</i>	554	40	12/18/92
	AAE	5,466,806	11/14/95	Belleau, <i>et al.</i>	544	310	03/29/93
	AAF	5,486,520	01/23/96	Belleau, <i>et al.</i>	514	274	12/10/93
	AAG	5,532,246	07/02/96	Belleau, <i>et al.</i>	514	274	01/03/92
	AAH	5,539,116	07/23/96	Liotta, <i>et al.</i>	544	317	02/10/93
	AAI	5,543,389	08/06/96	Yatvin, <i>et al.</i>	514	2	10/26/93

Examiner:

Date Considered:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.



Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)	Docket No:		Application No.	
	18085.105093 (EMU120CON)		09/879,854	
	Applicant:			
	Raymond F. Schinazi, <i>et al.</i>			
Filing Date:		Group Art Unit		
June 12, 2001		1614		

U.S. PATENT DOCUMENTS

Examiner Initials		Document Number	Date	Name	U.S. Class	U.S. Subclass	Filing Date If Appropriate
	BA	5,543,390	08/06/96	Yatvin, <i>et al.</i>	514	2	05/19/94
	BB	5,543,391	08/06/96	Yatvin, <i>et al.</i>	514	2	05/16/95
	BC	5,554,728	09/10/96	Basava, <i>et al.</i>	530	327	07/23/95
	BD	5,561,120	10/01/96	Lin <i>et al.</i>	514	49	10/01/96
	BE	5,587,480	12/24/96	Belleau, <i>et al.</i>	544	310	04/20/94
	BF	5,604,209	02/18/97	Ubasawa <i>et al.</i>	514	45	06/02/94
	BG	5,627,160	05/06/97	Lin <i>et al.</i>	514	49	07/28/93
	BH	5,631,239	05/20/97	Lin <i>et al.</i>	514	49	10/18/95
	BI	5,696,254	12/09/97	Mansour <i>et al.</i>	536	27.11	05/21/92
	BJ	5,744,596	04/28/98	Mansour <i>et al.</i>	536	27.11	06/05/95
	BK	5,756,706	05/26/98	Mansour <i>et al.</i>	536	27.11	05/20/92
	BL	5,770,713	06/23/98	Imbach, <i>et al.</i>	536	22.1	05/11/94
	BM	5,770,725	06/23/98	Gosselin, <i>et al.</i>	536	26.7	04/04/95
	BN	5,849,905	12/15/98	Gosselin, <i>et al.</i>	536	26.7	09/13/96
	BO	5,852,027	12/22/98	Liotta <i>et al.</i>	514	274	02/21/92
	BP	5,990,093	11/23/99	Schinazi <i>et al.</i>	514	47	03/31/97
	BQ	6,156,737	12/05/00	Mansour <i>et al.</i>	514	49	12/22/93
	BR	6,245,749 B1	06/12/01	Schinazi <i>et al.</i>	514	47	06/09/98

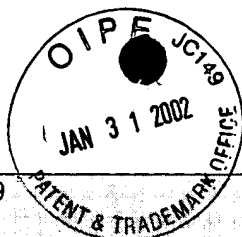
FOREIGN PATENT DOCUMENTS

Examiner Initials		Publication Number		Date	Country	Int. Cl. Patent	International Class Codes
	BS	0 217 580	A2	04/08/87	Europe	4	C 07 H 19/073
	BT	0 337 713	B1	10/18/89	Europe	6	C 07 D 473/32
	BU	0 350 287	A2	01/10/90	Europe	5	C 07 H 19/073
	BV	0 352 248	A1	01/24/90	Europe	5	C 07 H 19/06
	BW	0 375 329	A2	06/27/90	Europe	5	C 07 D 474/00
	BX	0 382 526	A2	08/16/90	Europe	5	C 07 D 473/00
	BY	0 433 898	A2	12/29/89	Europe	5	C 07 D 433/898
	BZ	0 494 119	A1	08/07/92	Europe	5	A 6K 31/505
	BBA	0 515 144	A1	11/25/92	Europe	6	A 61 K 31/505
	BBB	0 515 156	A1	11/25/92	Europe	5	C 07 H 19/04

Examiner:

Date Considered:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.



Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)	Docket No:		Application No.	
	18085.105093 (EMU120CON)		09/879,854	
	Applicant:			
	Raymond F. Schinazi, et al.			
Filing Date:		Group Art Unit		
June 12, 2001		1614		

FOREIGN PATENT DOCUMENTS

Examiner Initials		Publication Number		Date	Country	Int. Cl Patent	International	Class Codes
	CA	0 515 157	A1	11/25/92	Europe	5	C 07 D	327/04
	CB	0 526 253	A1	02/03/93	Europe	5	C 07 D	411/04
	CC	WO 88/07532	A1	10/06/88	PCT	4	C 07 D	405/04
	CD	WO 88/08001	A1	10/20/88	PCT	4	C 07 H	19/06
	CE	WO 89/02733	A1	04/06/89	PCT	4	A 61 K	9/66
	CF	WO 90/00555	A1	01/25/90	PCT	4	C 07 H	15/12
	CG	WO 90/12023	A1	10/18/90	PCT	5	C 07 H	19/10
	CH	WO 91/11186	A1	08/08/91	PCT	5	A 61 K	31/505
	CI	WO 91/16920	A1	11/14/91	PCT	5	A 61 K	37/22
	CJ	WO 91/17159	A1	11/14/91	PCT	5	C 07 D	411/04
	CK	WO 91/18914	A1	12/12/91	PCT	5	C 07 H	17/00
	CL	WO 91/19721	A1	12/26/91	PCT	5	C 07 F	9/6558
	CM	WO 92/00315	A1	01/09/92	PCT	5	C 07 H	21/00
	CN	WO 92/06102	A1	04/16/92	PCT	5	C 07 H	19/06
	CO	WO 92/08717	A1	05/29/92	PCT	5	C 07 D	409/04
	CP	WO 92/10496	A1	06/25/92	PCT	5	C 07 D	475/00
	CQ	WO 92/10497	A1	06/25/92	PCT	5	C 07 D	475/00
	CR	WO 92/14729	A1	09/03/92	PCT	5	C 07 D	411/04
	CS	WO 92/14743	A2	09/03/92	PCT	5	C 07 H	
	CT	WO 92/15308	A1	09/17/92	PCT	5	C 07 K	31/505
	CU	WO 92/18517	A1	10/29/92	PCT	5	C 07 D	17/00
	CV	WO 92/21676	A1	12/10/92	PCT	5	C 07 K	411/04
	CW	WO 93/00910	A1	01/21/93	PCT	5	A 61 K	31/70
	CX	WO 93/12128	A1	06/24/93	PCT	5	C 07 H	19/06
	CY	WO 93/12131	A1	06/24/93	PCT	5	C 07 H	21/00
	CZ	WO 93/12132	A1	06/24/93	PCT	5	C 07 H	21/00
	CCA	WO 93/24510	A1	12/09/93	PCT	5	C 07 H	19/70
	CCB	WO 94/04154	A1	03/03/94	PCT	5	A 61 K	3152
	CCC	WO 94/05300	A1	03/17/94	PCT	5	A 61 K	31/71
	CCD	WO 94/09793	A1	05/11/94	PCT	5	A 61 K	31/70
	CCE	WO 94/14456	A1	07/07/94	PCT	5	A 61 K	31/70

Examiner:

Date Considered:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.



Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)	Docket No:	Application No.
	18085.105093 (EMU120CON)	09/879,854
	Applicant:	
	Raymond F. Schinazi, <i>et al.</i>	
	Filing Date:	Group Art Unit
	June 12, 2001	1614

FOREIGN PATENT DOCUMENTS

Examiner Initials	Publication Number	Date	Country	Int. Cl. Patent	International Class Codes
DA	WO 94/14802	A1	07/07/94	PCT	5 C 07 D 411/04
DB	WO 94/26273	A1	11/24/94	PCT	5 A 61 K 31/44
DC	WO 94/26764	A1	11/24/94	PCT	5 C 07 H 21/00
DD	WO 94/27616	A1	12/08/94	PCT	5 A 61 K 31/70
DE	WO 95/07287	A1	03/16/95	PCT	6 C 07 H 19/04
DF	WO 95/11252	A1	04/27/95	PCT	6 C 07 H 19/10
DG	WO 96/15132	A1	05/23/96	PCT	6 C 07 F 9/02
DH	WO 95/20595	A1	08/03/95	PCT	6 C 07 H 19/00
DI	WO 96/401164	A1	12-19-91	PCT	6 A 61 K 31/70

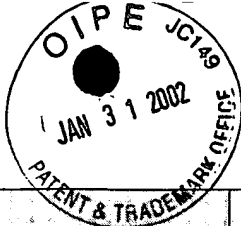
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

DJ	Ayoola, <i>et al.</i> , "Progress in the Control of Viral Hepatitis: Memorandum from a WHO Meeting," <i>Bulletin of the World Health Organization</i> , 66(4):443-455 (1988).
DK	Beach, <i>et al.</i> , "Synthesis of Enantiomerically Pure (2'R,5'S)-(-)-1-[2-(hydroxymethyl) oathiolan-5-yl]Cytosine as a Potential Antiviral Agent Against Hepatitis B (HBV) and Human Immunodeficiency," <i>J. Org. Chem.</i> 57:2217-2219 (1992).
DL	Beasley, <i>et al.</i> , "Hepatocellular Carcinoma and Hepatitis B Virus," <i>The Lancet</i> , 1129-1133 (1981).
DM	Belleau, B., <i>et al.</i> , "Design and Activity of a Novel Class of Nucleoside Analogs Effective Against HIV-1...", <i>Intl. Conf. on AIDS</i> , Montreal, Quebec, Canada, June 4-9, 1989.
DN	Boutelje, <i>et al.</i> , <i>Chemical Abstracts</i> 108:128048 (1987).
DO	Chang, C-N., <i>et al.</i> , "Biochemical Pharmacology of (+) and (-)-2',3'-Dideoxy-3'-Thiacytidine as Anti-Hepatitis B Virus Agents," <i>J. Biol. Chem.</i> 267(31):22414-22420 (1992).
DP	Chang, Chien-Neng, <i>et al.</i> , "Deoxycytidine Deaminase-resistant Stereoisomer is the Active Form of (+)-2'-3'-Dideoxy S'-Thiacytidine in the Inhibition of Hepatitis B Virus Replication," <i>J. Bio. Chem.</i> , 267(20):13938-13942 (1992).
DQ	Chang, Chungming, <i>et al.</i> , "Production of Hepatitis B Virus <i>in vitro</i> by Transient Expression of cloned HBV PNA in Hepatoma Cell Line," <i>The EMBO J.</i> 6(3):675-680 (1987).

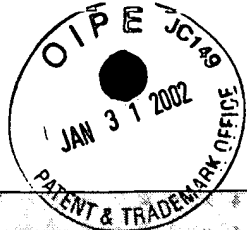
Examiner:

Date Considered:

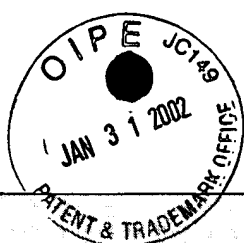
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.



Form PTO-1449		Docket No:	Application No.
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)		18085.105093 (EMU120CON)	09/879,854
		Applicant:	
		Raymond F. Schinazi, <i>et al.</i>	
		Filing Date:	Group Art Unit
		June 12, 2001	1614
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
EA	Chu, <i>et al.</i> , "Structure Activity Relationships of Pyrimiding Nucleosides as Antiviral Agents for Human Immunodeficiency Virus Type 1 in Peripheral Blood Mononuclear Cells." <i>J. Med. Chem.</i> , 32:3 pp. 612-617 (1989).		
EB	Chu, <i>et al.</i> , "Enantiomeric Synthesis of (+)-BCH-189[(+)-(2S,5R)-1-(Hydroxymethyl)-1,3-oxathiolan-5-yl]cytosine] from D-Mannose and Its Anti-HIV Activity," <i>J. Org. Chem.</i> , 56:6503-6505 (1991).		
EC	Chu, <i>et al.</i> , "An Efficient Total Synthesis of 3'-Azido-3'-Deoxythymidine (AZT) and 3'-Azido-2',3'-Dideoxyuridine (AZDDU, CS-87) from D-Mannitol," <i>Tetrahedron Letters</i> , 29(42):5349-5352 (1988).		
ED	Chu, <i>et al.</i> , "Comparative Activity of 2',3'-Saturated and Unsaturated Pyrimidine and Purine Nucleosides Against Human Immunodeficiency Virus Type 1 in Peripheral Blood Mononuclear Cells," <i>Biochem. Pharm.</i> 37(19); pp. 3543-3548 (1988).		
EE	Chu, <i>et al.</i> , "Synthesis and Biological Evaluation of D-(2S) and L-(2R)-1,3-Oxathiolanyl-and D-(2R)- and L-(2S)-1,3-Dioxolanyl-Nucleosides as Anti-HIV and Anti-HBV Agents," <i>Antiviral Research</i> , 30(S1):192; p. 146 (1993).		
EF	Chu, <i>et al.</i> , "Synthesis and Anti-HIV and Anti-HBV Activity of Enantiomerically Pure Oxathiolane Nucleosides," <i>Antiviral Research</i> , 17(S1):2; p. 44 (1992).		
EG	Chu, <i>et al.</i> , "Asymmetric Synthesis of Enantiomerically Pure (-)-(1'R,4'R)-Dioxolane-thymine and Its Anti-HIV Activity," <i>Tetrahedron Letters</i> , 32(31):3791-3794 (1991)		
EH	Coates, <i>et al.</i> , "The Separated Enantiomers of 2'-Deoxy-3'-Thiacytidine (BCH-189) Both Inhibit Human Immunodeficiency Virus Replication In Vitro," <i>Antimicrob. Agents Chemother.</i> 36(1):202-205 (1992)		
EI	Cretton, <i>et al.</i> , "Catabolism of 3'-Azido-3'-Deoxythymidine in Hepatocytes and Liver Microsomes, with Evidence of Formation of 3'-Amino-3'-Deoxythymidine a Highly Toxic Catabolite for Human Bone Marrow Cells," <i>Molecular Pharmacology</i> , 39:258-266 (1991).		
EJ	Cretton, <i>et al.</i> , "Pharmokinetics of 3'-Azido-3'-Dexoxythymidine and its Catabolites and Interactions with Probenecid in Rhesus Monkeys," <i>Antimicrobial Agents and Chemotherapy</i> , 35(5):801-807 (1991).		
EK	Di Bisceglie, <i>et al.</i> , "Hepatocellular Carcinoma," NIH Conference, <i>Annals of Internal Medicine</i> , 108:390-401 (1988).		
EL	Doong, <i>et al.</i> , "Inhibition of the Replication of Hepatitis B virus <i>in vitro</i> by 2',3'-Dideoxy-3'-Thiacytidine and Related Analogues," <i>Ntl. Acad. Sci. USA</i> , 88:8495-8499 (1991).		
Examiner:		Date Considered:	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.			



Form PTO-1449		Docket No:	Application No:
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)		18085.105093 (EMU120CON)	09/879,854
		Applicant:	
		Raymond F. Schinazi, <i>et al.</i>	
		Filing Date:	Group Art Unit
		June 12, 2001	1614
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
FA	Furman, <i>et al.</i> , "The Anti-Hepatitis B Virus Activities, Cytotoxicities, and Anabolic Profiles of the (-) and (+) Enantiomers of <i>cis</i> -5-Fluoro-1-[2-(Hydroxymethyl)-1,3-Oxathiolane-5-yl] Cytosine," <i>Antim. Agents and Chemo.</i> , 36(12):2686-2692 (1992).		
FB	Ganem, "Animal Models of Hepatitis B Virus Infection," <i>Experimental Models in Antimicrobial Chemotherapy</i> , 2:259-273 (1986).		
FC	Ganem, <i>et al.</i> , "The Molecular Biology of the Hepatitis B Viruses," <i>Ann. Rev. Biochem.</i> , 56:651-693 (1987).		
FD	Gosselin, <i>et al.</i> , "Enantiomeric 2',3'-Deoxycytidine Derivatives are Potent Human Immunodeficiency Virus Inhibitors in Cell Cultures," <i>C.R. Acad. Sci. Paris Sci. Vie.</i> Inhibitory Effect of 2',3'-Didehydro-2',3'-Dideoxynucleosides on Infectivity, Cytopathic Effects, and Replication of Human Immunodeficiency Virus," 317:85-89 (1994).		
FE	Hamamoto, <i>et al.</i> , <i>Antimicrob. Agents and Chemother.</i> , 31:907-910 (1987).		
FF	Hoong, <i>et al.</i> , "Enzyme-Mediated Enantioselective Preparation of Pure Enantiomers of the Antiviral Agent 2'3'-Dideoxy-5-Fluoro-3'-Thiacytidine (FTC) and Related Compounds," <i>J. of Org. Chem.</i> , 57:5563-5565 (1992). (pg. 65 missing)		
FG	Jeong, <i>et al.</i> , "Asymmetric Synthesis and Biological Evaluation of β -L-(2 <i>R</i> ,5 <i>S</i>)- and α -L-(2 <i>R</i> ,5 <i>R</i>)-1,3-Oxathiolane-Pyrimidine and -Purine Nucleosides as Potential Anti-HIV Agents," <i>J. Med. Chem.</i> , 36(2):181-195 (1993).		
FH	Jeong, <i>et al.</i> , "An Efficient Synthesis of Enantiomerically Pure (+)-(2 <i>S</i> ,5 <i>R</i>)-1-[2-(Hydroxymethyl)-1,3-oxathiolan-5-yl]cytosine [(+)-BCH-189] from D-Galactose," <i>Tetrahedron Letters</i> , 33(5):595-598 (1992). (pp. 96 & 97 missing)		
FI	Jones, <i>et al.</i> , "Minireview: nucleotide prodrugs," <i>Antiviral Research</i> , 27:1-17 (1995).		
FJ	Jurovcik and Holy, "Metabolism of pyrimidine L-nucleosides," <i>Nucleic Acid Research</i> , 3(8):2143-2154 (1976)		
FK	Kassianides, <i>et al.</i> , "Inhibition of Duck Hepatitis B Virus Replication by 2',3'-Dideoxycytidine," <i>Gastroenterology</i> , 97(5):1275-1280 (1989).		
FL	Kim, <i>et al.</i> , "Potent Anti-HIV and Anti-HBV Activities of (-)-L- β -Dioxolane-C and (+)-L- β -Dioxolane-T and Their Asymmetric Syntheses," <i>Tetrahedron Letters</i> , 33(46):6899-6902 (1992)		
FM	Kim, <i>et al.</i> , "1,3-Dioxolanyl-purine Nucleosides (2 <i>R</i> ,4 <i>R</i>) and (2 <i>R</i> ,4 <i>S</i>) with Selective Anti-HIV-1 Activity in Human Lymphocytes," <i>J. Med. Chem.</i> , 36(1):30-37 (1993)		
Examiner:		Date Considered:	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.			



Form PTO-1449		Docket No:	Application No.
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)		18085.105093 (EMU120CON)	09/879,854
		Applicant:	
		Raymond F. Schinazi, <i>et al.</i>	
		Filing Date:	Group Art Unit
		June 12, 2001	1614
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
GA	Kim, <i>et al.</i> , "L- β -(2S,4S)-and L- α -(2S,4R)-Dioxolanyl Nucleosides as Potential Anti-HIV Agents: Asymmetric Synthesis and Structure-Activity Relationships," <u>J. of Med. Chem.</u> , 36(5):519-528 (1993)		
GB	Krenitsky, <i>et al.</i> , "3'-Amino-2'3'-Dideoxyribonucleosides of Some Pyrimidines: Synthesis and Biological Activities," <u>J. Med. Chem.</u> , 26(6) 891-895 (1983).		
GC	Kukhanova, <i>et al.</i> , "L- and D-Enantiomers of 2',3'-Dideoxycytidine 5'-Triphosphate Analogs as Substrates for Human DNA Polymerases," <u>J. Bio. Chem.</u> , 270(39):23055-23059 (1995).		
GD	Lee, <i>et al.</i> , "In Vitro and In Vivo Comparison of the Abilities of Purine and Pyrimidine 2',3'-Dideoxynucleosides To Inhibit Duck Hepadnavirus," <u>Antimicrobial Agents and Chemotherapy</u> , 33(3):336-339 (1989)		
GE	Lin, <i>et al.</i> , "Potent and Selective In Vitro Activity of 3'-Deoxythymidin-2-Ene-(3'-Deoxy-2',3'-Didehydrothymidine) Against Human Immunodeficiency Virus," <u>Biochem. Pharm.</u> 36(17):2713-2718 (1987).		
GF	Mahmoudian, <i>et al.</i> , "Enzymatic Production of Optically Pure (2'R- <i>cis</i>)-26;-deoxy-3'miacytidine (3TC,Lamivudine): A Potent Anti-HIV Agent," published by the Glaxo Group Research Ltd., <u>Enzyme Microb. Technol.</u> , Vol. 15:749-755 (1993)		
GG	Mansuri, M.M., <i>et al.</i> , "Preparation of the Geometric Isomers of DDC, DDA, D4C, and D4T. As Potential AntiHIV Agents. .," <u>Bioorg. Med. Chem. Lett.</u> , 1:65-68 (1991). 1:1		
GH	Matthes, <i>et al.</i> , "Potent Inhibition of Hepatitis B Virus Production in Vitro by Modified.Pyrimidine Xlycleosides . .," <u>Anti. Agents and Chemot.</u> , 34(10):1986-1990 (1990).		
GI	Miller, <i>et al.</i> , "Common Evolutionary Origin of Hepatitis B Virus and Retroviruses," <u>Proc. Natl. Acad. Sci. USA</u> , 83:2531-2535 (1986)		
GJ	Mitsuya, <i>et al.</i> , "3'-Azido-3'-Deoxythymidine (BW A509U): An Antiviral Agent that Inhibits and Infectivity and Cytopathic Effect of Human T-Lymphotropic Virus Type III/Lymphadenopathy-Associated Virus <i>in Vitro</i> ," <u>Proc. Natl. Acad. Sci. USA</u> , 82:7096-7100 (1985).		
GK	Mitsuya, <i>et al.</i> , "Rapid in Vitro Systems for Assessing Activity of Agents Against HTLV-III/LAV...", <u>AIDS: Modern Concepts and Therapeutic Challenges</u> , pp. 303-333, Marcel-Dekker, Inc., New York and Basel (1987).		
GL	Mitsuya, <i>et al.</i> , "Molecular Targets for AIDS Therapy," <u>Science</u> , 249:1533-1544 (1990).		
GM	Norbeck, <i>et al.</i> , "A New 2',3'-Dideoxynucleoside Prototype with <i>In Vitro</i> Activity Against HIV," <u>Tetrahedron Lett.</u> , pp. 6263-6266 (1989). 30:46		
Examiner:		Date Considered:	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.			



Form PTO-1449 INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)	Docket No:	Application No.
	18085.105093 (EMU120CON)	09/879,854
	Applicant:	
	Raymond F. Schinazi, <i>et al.</i>	
	Filing Date:	Group Art Unit
	June 12, 2001	1614

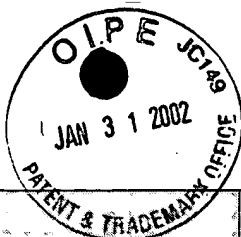
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

HA	Norin, Chemical Abstracts, 108:146380, (1987).
HB	Ohno, et al., Chemical Abstracts, 112:194612 "Chiral Synthons by Ester Hydrolysis Catalyzed by Pig Liver Esterase." (1989).
HC	Okabe, et al., "Synthesis of the Dideoxynucleosides ddC and CNT from Glutamic Acid, Ribonolactone, and Pyrimidine Bases...", <u>J. Org. Chem.</u> , 53(20):4780-4786 (1988).
HD	Pai, et al., "Inhibition of Hepatitis B Virus by a Novel L-Nucleoside, 2'-Fluoro-5-Methyl- β -L-Arabinofuranosyl...", <u>Antimicrobial Agents & Chemotherapy</u> , 40(2):380-386 (1996).
HE	Richman, et al., "The Toxicity of Azidothymidine (AZT) in the Treatment of Patients with AIDS and AIDS-Related Complex...", <u>N. Eng. J. Med.</u> , 317(4):192-197 (1987). (pg. 194 missing)
HF	Ryan, et al., "9- β -L-Riboufuranosyladenine ("L-Adenosine"), <u>Synthetic Procedures in Nucleic Acid Chemistry</u> , Vol. 1, pp. 163-167, Interscience Publishers, NY, NY (1968).
HG	Satsumabayashi, et al., "The Synthesis of 1,3-Oxathiolan-5-one Derivatives, <u>Bullet on Chem. Soc. Japan</u> , 45:913-915 (1972).
HH	Schinazi, et al., "Pure Nucleoside Enantiomers of β -2',3'-Dideoxycytidine Analogs are Selective Inhibitors of Hepatitis B Virus <i>In Vitro</i> ," <u>Antimicrobial Agents and Chemotherapy</u> , 38(9):2172-2174 (1994).
HI	Schinazi, et al., "Selective Inhibition of Human Immunodeficiency Viruses by Racemates and Enantiomers of <i>cis</i> -5-Fluoro-1-[2-(Hydroxymethyl)-1,3-Oxathiolan-5-y]] Cytosine," <u>Antim. Agents and Chemo.</u> , 36(11):2423-2431 (1992).
HJ	Schinazi, et al., "Activities of the Four Optical Isomers of 2',3'-Dideoxy-3'-Thiacytidine (BCH-189) against Human Immunodeficiency Virus Type 1 in Human Lymphocytes," ..., <u>Antimic Agents & Chemo.</u> , 36(3):672-676 (1992). (pgs. 673 and 674 missing)
HK	Schinazi, et al., "Rapid Communications: Substrate Specificity of <i>Escherichia Coli</i> , Thymidine Phosphorylase for Pyrimidine Nucleoside with an Anti-Human Immunodeficiency Virus Activity," <u>Bioch. Pharm.</u> , 44(2):199-204 (1992). (pgs. 200, 202 and 204 missing)
HL	Schinazi, et al., "Insights into HIV Chemotherapy," <u>AIDS Research and Human Retroviruses</u> 8(6):963-990 (1992).
HM	Schinazi, et al., "Pharmacokinetics and Metabolism of Racemic 2',3'-Dideoxy-5...", <u>Antimicrobial Agents and Chemotherapy</u> 36(11):2432-2438 (1992).
HN	Schinazi, et al., <u>Antimicrob. Agents Chemother.</u> , "Comparison of Inhibitory Activities of Various Antiviral Agents against Particle-Driven and Recombinant Human Immunodeficiency Virus Type 1 Reverse Transcriptase." (1989). 33:1 pp. 115-117

Examiner:

Date Considered:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.



Form PTO-1449		Docket No.	Application No.
INFORMATION DISCLOSURE CITATION IN AN APPLICATION (Use several sheets if necessary)		18085.105093 (EMU120CON)	09/879,854
		Applicant:	
		Raymond F. Schinazi, <i>et al.</i>	
		Filing Date:	Group Art Unit
		June 12, 2001	1614
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)			
IA	Sells, et al., Production of Hepatitis B Virus Particles in Hep G2 Cells Transfected with Cloned Hepatitis B Virus DNA", <u>Pro. Natl. Acad. Sci. USA</u> , 84:1005-1009 (1997).		
IB	Soudeyns, et al., "Anti-Human Immunodeficiency Virus Type 1 Activity and Vitro Toxicity of 2'-Deoxy-3'-Thiacytidine...", <u>Antimicrobial Agents and Chemotherapy</u> , 35(7):1386-1390(1991). (pg. 1387 missing)		
IC	St. Clair, et al., <u>Antimicrob. Agents Chemother.</u> , 3'-Azido-3'-Deoxythymidine Triphosphate as an Inhibitor and Substrat of Parified Human Immunodeficiency virus Reverse Transcriptase," 31:1972 (1987). 31:12 pg. 1972-1977		
ID	Sterzycki, et al., "Synthesis and Anti-HIV Activity of Several 2'-Fluoro-Containing Pyrimidine Nucleoside," <u>J. Med. Chem.</u> , 33(8)*2150-2157 (1990)*		
IE	Storer, et al., "The Resolution and Absolute Stereochemistry of the Enantiomers of <i>cis</i> -1-[2-(Hydromethyl)-1,3-Oxathiolan-5-yl]cytosine (BCH-189): Equipotent Anti-HIV Agents," <u>Nucleosides & Nucleotides</u> , 12(2):225-236 (1993).		
IF	Su, et al., "Nucleosides. 136. Synthesis and Antiviral Effects and Several 1-(2-Deoxy-2-Fluoro-β-D-Arabinofuranosyl)-5-Alkyluracils. Some Structure- Activity Relationships," <u>J. Med. Chem.</u> , 29(1):151-154 (1986).		
IG	Sureau, et al., "Production of Hepatitis B Virus by a Differentiated Human Hepatoma Cell Line after Transfection with Cloned Circular HBV DNA," <u>Cell</u> , 47:37-47 (1986)		
IH	Tsurimoto, et al., "Stable Expression and Replication of Hepatitis B Virus Genome ...in an integrated state in a human hepatoma call line transfected with the cloned viral DNA," <u>Proc. Natl. Acad. Sci. USA</u> , 84:444-448 (1987).		
II	Volk, Wesley A., Editor, "Hepatitis," <u>Essentials of Medical Microbiology</u> , J.B. Lippincott Company, (Philadelphia/Toronto) 2 nd Ed., pp. 609-618 (1982).		
IJ	Vorbrüggen, et al., "Nucleoside Synthesis with Trimethylsilyl/Triflate and Perchlorate as Catalysts," <u>Chem. Ber.</u> , 114:1234-1255 (1981).		
IK	Watanabe, et al., <u>J. Med. Chem.</u> , 33:2145-2150. "Synthesis and Anti-HIV-2 Activity of 2'-"4"-Plyoro Analogues of Active Anti-AIDS Nucleosides 3-Acidoes deoxythymidine (AZT) and 2',3'-Didesxyaytidine (DDC)" (1990).		
IL	Wilson, et al., The Synthesis and Anti-HIV Activity of Pyrimidine Dioxolanyl Nucleosides," <u>Bioorganic & Medicinal Chemistry Letters</u> , 3(2):169-174 (1993).		
IM	Wilson, et al., "A General Method for Controlling Glycosylation Stereochemistry in the Synthesis of 2'-Deoxyribose Nucleosides," <u>Tetrahedron Lett</u> , 31(13):1815-1818 (1990).		
IN	Yokota et al. "Comparative Activities of Several Nucleoside Analogs Against Duck Hepatitis B Virus In Vitro," Denivotues by Previously unrecognized Metabolic Pathways 2'-Deoxyuri" <u>Antimicrobial Agents and Chemotherapy</u> , 34(7):1326-1330 (1990).		
IO	Zhu, et al., "Cellular Metabolism of 3'-Azido-2',3'-Dideoxyuridine with Formation of 5'-O-Diphosphoshexose" <u>Molecular Pharmacology</u> , 38:929-938 (1990).		
Examiner:		Date Considered:	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.			